

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

Claims 15-40 are pending in this application. Claims 15, 19, 23 and 31 are independent. By this Amendment, Claims 15-20, 23, 27-31 and 34 are amended, and Claims 35-40 are added. Support for the amendments to independent Claims 15, 19, 23 and 31 can be found, for example, on page 21, line 13 to page 23, line 24 of the specification. Support for Claims 35-40 can be found, for example, in Figs. 16 and 17 and the corresponding description in the specification. No new matter is added.

Applicants appreciate the Examiner's indication that Claims 16, 18, 21, 22, 24-26, 28-30, 32 and 33 recite allowable subject matter, and would be allowable if rewritten to be in independent form including all of the features of the base claim and any intervening claims. Applicants submit that all pending claims are allowable for the reasons set forth below.

The Office Action rejects claims 15-34 under 35 U.S.C. §112, second paragraph. The claims are amended to obviate the rejection by clarifying that the claimed counting is performed by the control circuit, as discussed, for example, on page 21, line 13 to page 23, line 24 of the specification. Thus, withdrawal of the rejection is respectfully requested.

The Office Action rejects independent Claims 15, 19, 23 and 31 under 35 U.S.C. §103(a) over Ishikawa et al. ("Ishikawa"), U.S. Patent No. 6,401,766, in view of Obata et al. ("Obata"), U.S. Patent No. 6,338,263. The rejection is respectfully traversed.

The Office Action acknowledges that Ishikawa fails to disclose the claimed detecting of the first to-be-detected portion with a first detecting apparatus to detect an amount of rotation of the wire reel, and the claimed counting of second to-be-detected portions during rotation of the wire reel to detect a type of the wire reel. The Office Action asserts that these claimed aspects are disclosed by Obata, and that it would have been obvious to one skilled in the art to modify Ishikawa's machine with the features of Obata to result in the claimed combination of features. Applicants respectfully disagree with these assertions for at least the following reasons.

First, Obata fails to disclose counting second to-be-detected portions during rotation of a device (such as a wire reel). Obata discloses a method for manufacturing an embossed can body where a pattern 15 is printed on an outer surface of a cylindrical can barrel 11 (see Figs. 6 and 10; Abstract; and col. 1, lines 9-11). The method performs an *accurate alignment* between the pattern and the embossed portion (see Abstract; col. 1, lines 14-17; and col. 3, lines 38-41). To this end, Obata discloses that a stopping mark 17a and a confirmation mark 17b are formed on the can barrel 11 (see Figs. 1-3; col. 6, lines 61-65; and col. 9, lines 6-34). A first sensor 151 detects the presence of the stopping mark 17a and a second sensor 152 detects the presence of the confirmation mark 17b (see Fig. 10; Abstract; and col. 9, lines 6-21). When the first sensor 151 and the second sensor 152 detect the stopping mark 17a and the confirmation mark 17b, respectively, the correct orientation of the pattern 15 on the can barrel 11 can be confirmed (see Abstract). The Office Action takes the position that the stopping mark 17a and the confirmation mark 17b correspond respectively to the claimed first and second to-be-detected

portions, and that the first and second sensors 151 and 152 correspond respectively to the claimed first and second detecting apparatuses. However, neither the second sensor 152 nor any other device in Obata counts the confirmation mark 17b during rotation of the can barrel 11. For example, Obata discloses that the sensor 152 simply detects the presence of the confirmation mark 17b to judge whether or not the pattern 15 is oriented in the correct predetermined position on the can barrel 11 (see col. 9, lines 18-21). Moreover, there is no reason to count the single confirmation mark 17b. Thus, Obata fails to disclose counting second to-be-detected portions during rotation of a device. Accordingly, Obata fails to disclose counting a second to-be-detected portion during rotation of the wire reel as recited in independent Claims 15, 19, 23 and 31. In this regard, modifying Ishikawa's machine with the detection elements of Obata would not have resulted in the claimed combination of features. Therefore, independent Claims 15, 19, 23 and 31 are patentable over the combination of Ishikawa and Obata for at least these reasons.

In addition, Obata fails to disclose counting a second to-be-detected portion during rotation of the wire reel to detect a type of the device as recited in independent Claim 31. As discussed above, the sensor 152 simply detects whether or not the pattern 15 is oriented in the correct predetermined position on the can barrel 11. Thus, independent Claim 31 is patentable over the combination of Ishikawa and Obata for at least these additional reasons.

Second, Obata's first sensor 151 does not detect the stopping mark 17a to detect an amount of rotation of the can barrel 11. The sensor 151 simply detects for the presence of the stopping mark 17a (see col. 9, lines 14-16). The can barrel 11 is rotated until the stop mark 17a is detected, signifying that the pattern 15 is oriented

in the correct predetermined position (see col. 9, lines 16-18). The amount of rotation of the can barrel 11 is not detected by the first sensor 151. Thus, Obata fails to disclose detecting a first to-be-detected portion with a first detecting apparatus to detect an amount of rotation of a device as recited in independent Claims 15, 19, 23 and 31. Therefore, independent Claims 15, 19, 23 and 31 are patentable over the combination of Ishikawa and Obata for at least these additional reasons.

Third, there is inadequate evidence to support the Office Action's conclusion that it would have been obvious to one skilled in the art to modify Ishikawa's machine with the detection elements of Obata. The Office Action merely states that the combination would have been obvious "because applying a known technique to a know device ready for improvement yields predictable results" (see page 3 of the Office Action). This conclusory statement is insufficient to support an obviousness rejection, particularly taking into account the Patent Office's Examination Guidelines for Determining Obviousness Under 35 U.S.C. §103(a) in view of *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007)). The Guidelines state that the Examiner should clearly articulate why the claimed invention would have been obvious. For example, the Supreme Court in *KSR* held that the Examiner "must [provide] some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" (*KSR*, at 1396). In this case, it is not at all apparent why one skilled in the art would have been led to the stated modification. In particular, it is not at all clear why one skilled in the art would have found it desirable to provide Ishikawa's machine with Obata's stopping mark 17a and confirmation mark 17b, along with the associated sensors 151, 152, when these elements are disclosed as doing nothing more than align a pattern and an embossed portion of a

cylindrical barrel. The Office Action has failed to provide any articulated reasoning or rational underpinning as to why or how Obata's alignment of a pattern and an embossed portion has any relevance to the binding machine disclosed by Ishikawa. The Supreme Court in *KSR* noted that an invention "composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art" (*Id.*). To establish obviousness, it must be shown that those of ordinary skill in the art would have had some "apparent reason to combined the known elements in the fashion claimed" (*Id.*). That is, simply because something could have been modified and a person of ordinary skill was capable of making the modification does not mean it would have been obvious to do so. The Office Action here has failed to show why one of ordinary skill in the art would have had any reason to combine Obata's detection elements, that align a pattern and an embossed portion, with Ishikawa's machine. In this regard, the Office Action fails to consider the references and claims as a whole (see MPEP §2141.02(I), and relies on impermissible hindsight using knowledge gleaned only from Applicants' disclosure (see MPEP §2145(X)(A)). Thus, there is inadequate evidence supporting the conclusion that it would have been obvious to modify the machine of Ishikawa to include the detection elements disclosed by Obata. Therefore, independent Claims 15, 19, 23 and 31 are patentable over the combination of Ishikawa and Obata for at least these additional reasons.

Withdrawal of the rejection is respectfully requested.

The Office Action rejects Claims 17, 20, 27 and 34 under 35 U.S.C. §103(a) over Ishikawa in view of Obata, and further in view of Hanagasaki et al.

("Hanagasaki"), U.S. Patent No. 5,515,887. This rejection also is respectfully traversed.

Claims 17, 20, 27 and 34 are patentable over the applied references at least by virtue of their dependence to the respective independent claims. Thus, a detailed discussion of the additional distinguishing features recited in these dependent claims is not set forth at this time. Withdrawal of the rejection is respectfully requested.

Claims 35-40 are presented for consideration and recite additional features of the wire reel. Claims 35-40 are patentable over the applied references for at least the additional features these claims recite, as well as by virtue of their respective dependence to independent Claims 15 and 19.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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By: 

David R. Kemeny
Registration No. 57241

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620